

OPERATIONAL SUPPLEMENT

TECHNICAL MANUAL

AIRCRAFT WEAPONS SYSTEMS

CLEANING AND CORROSION

CONTROL

(ATOS)

THIS PUBLICATION SUPPLEMENTS TO 1-1-691 DATED 1 MAY 1996 AND SUPERSEDES TO 1-1-691D DATED 15 SEPTEMBER 1993, TO 1-1-691E DATED 15 NOVEMBER 1993, TO 1-1-691F DATED 1 APRIL 1994 AND INTERIM OPERATIONAL SUPPLEMENT TO 1-1-691S-1 DATED 3 DECEMBER 1996. Reference to this supplement will be made on the title page of the basic publication.

COMMANDERS ARE RESPONSIBLE FOR BRINGING THIS SUPPLEMENT TO THE ATTENTION OF ALL AFFECTED AF PERSONNEL

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30 JANUARY 1998

1. PURPOSE.

To prevent reduction in operational efficiency.

2. INSTRUCTIONS.

- a. Page 3-3, paragraph 3-3.1 is amended to add the following at end of paragraph to read:

In lieu of 1,1,1- Trichloroethane or Methyl Ethyl Ketone, use of MIL-C-87937, Type II is authorized for external spot cleaning. Hand wipe in accordance with the following instructions:

Medium Grease Removal: Dilute MIL-C-87937, Type II with water to make a 20% solution (1 part cleaner: 4 parts water). Use a clean, dry, lint free cloth for the final wipe.

Light Grease Removal: Dilute MIL-C-87937, Type II with water to make a 10% solution (1 part cleaner: 9 parts water). Use a clean, dry, lint free cloth for the final wipe.

- b. Page 3-5, paragraph 3-3.5.2 is amended to add the following at end of paragraph to read:

In lieu of 1,1,1-Trichloroethane, use of MIL-C-87937, Type II is authorized for external spot cleaning. Although not a solvent, use as a wipe solvent substitute. Hand wipe in accordance with the following instructions:

Medium Grease Removal: Dilute MIL-C-87937, Type II with water to make a 20% solution (1 part cleaner: 4 parts water). Use a clean, dry, lint free cloth for the final wipe.

Light Grease Removal: Dilute MIL-C-87937, Type II with water to make a 10% solution (1 part cleaner: 9 parts water). Use a clean, dry, lint free cloth for the final wipe.

- c. Page 3-5, paragraph 3-3.5.4 is amended to add the following at end of paragraph to read:

In lieu of MEK, use of MIL-C-87937, Type II is authorized for external spot cleaning. Although not a solvent, use as a wipe solvent substitute. Hand wipe in accordance with the following instructions:

Medium Grease Removal: Dilute MIL-C-87937, Type II with water to make a 20% solution (1 part cleaner: 4 parts water). Use a clean, dry, lint free cloth for the final wipe.

Light Grease Removal: Dilute MIL-C-87937, Type II with water to make a 10% solution (1 part cleaner: 9 parts water). Use a clean, dry, lint free cloth for the final wipe.

- d. Page 3-34, paragraph 3-5.3.8, step a. is amended to change line 5 of CAUTION to read:

ized as directed by T.O.

- e. Page 3-35, paragraph 3-5.3.9, lines 9 and 10 are amended to delete (for additional Air Force requirements, see Appendix E)

- f. Page 5-13, paragraph 5-5.6.2 is amended to change last line of paragraph to read:

to T.O. 1-1-8 or the system specific manual

- g. Page E-2, paragraph E-1.1., step d. is amended to change last sentence to read as follows:

requirements are as follows:

- h. Page E-3, Table E-1 is amended to add the following new entry to read:

A1 Kharj AB, Saudi Arabia, Moderate Corrosion severity

- i. Page E-3, Table E-1 is amended to add a sentence to end of note to read:

Plans and scheduling will track the 15-day rinse cycle by entering a special inspection into their maintenance data system for assigned aircraft. This is to ensure the rinse program is tracked as scheduled maintenance and not solely in the aircraft AFTO Forms 781k.

- j. Page E-6, Air Base column is amended to change entry 3 for Offutt AFB, NV to read:
Offutt AFB, NE

- k. Page E-7, paragraph E-1.1, sub-step d (2) is amended to change lines 6 and 7 to read as follows:

mitations, and entry will be placed in the aircraft forms and a clear water rinse will be accom-

- l. Page E-7, paragraph E-1.1, sub-step d (3) is amended to read as follows:

(3) A clear-water rinse is required after the last flight of the day when a low-level flight (under 3,000 feet) over salt water has occurred. The same rinse requirement exists when two or more take-offs and landings that require low-level flight over salt water are performed in a single day. (touch-and-go landings or low level approaches generate the same rinse requirements as full-stop landings.)

- m. Page E-7, paragraph E-1.1 is amended to delete sub-steps e.(1), (2) and (3).

- n. Page E-7, paragraph E-1.1, step g. is amended to read as follows:

g. Bases which must routinely rinse assigned aircraft, due to low-level flight over salt water, may adopt a 15-day rinse program for all assigned aircraft in lieu of routine daily rinsing of flyers. This option will not be granted for aircraft based within 1.25 miles of salt water or involved in search/rescue/recovery or other special operations over salt water. Approval for adoption of the 15-day rinse program must be requested through the Major Command Corrosion Program Manager to the Air Force Corrosion Program Office. Bases granted the 15-day rinse program will ensure Plans and Scheduling enters a special inspection into their maintenance data system. This is to ensure the rinse program is tracked as scheduled maintenance and not solely in the aircraft AFTO forms 781k.

- o. Page E-7, paragraph E-1.1 is amended to add NOTE following sub-step d.(3) to read:

NOTE

When extremely unique operational requirements or facility limitations severely impact a unit's ability to accomplish daily rinses, the MAJCOM corrosion program manager, in conjunction with the aircraft system program manager, may temporarily waive the daily rinse requirement. All waivers must be forwarded through the MAJCOM corrosion program manager to the Aircraft System Program Manager, who has final approval authority. The MAJCOM corrosion Program Manager must forward a copy of the approved waiver to the Air Force Corrosion Program Office. Each waiver shall be valid for a period not to exceed one year.

p. Page E-8, Table E-2, Aircraft Clear Water Rinse Requirements is amended, in its entirety, to read as follows:

Table E-2. MIL-C-87937

Nomenclature	Specification Part Number	National Stock Number	Unit Issue	Intended Use
Cleaning Compound				
Cleaning Compound Aircraft, Exterior	MIL-C-87937B Type I	6850-01-390-7808 6850-01-390-7811 6850-01-390-7816 6850-01-390-7821	1 Gallon 5 Gallon 55 Gallon Bulk	Type I - Terpene Based, Solvent Emulsion, Water Diluteable Cleaning Compound. Best used on heavily soiled areas on painted and unpainted surfaces where sufficient ventilation is available. Depending on dilution ratio, may be used for general aircraft cleaning. Suitable for use on high gloss or tactical paint systems.
	Type II	6850-01-390-7827 6850-01-339-5227 6850-01-339-5228 6850-01-390-7828	1 Gallon 5 Gallon 55 Gallon Bulk	Type II - Water Diluteable Cleaning Compound. Best used for general aircraft cleaning on painted or unpainted surfaces. Suitable for use on high gloss or tactical paint systems.
	Type III	6850-01-390-9530 6850-01-390-9453 6850-01-390-9558	1 Gallon 55 Gallon Bulk	Type III - Gel-Type (Thixotropic, Viscous) Cleaning Compound. Best suited for use on heavily soiled surfaces, painted or unpainted, where additional dwell time is desired. ie; wheel and flap wells overhead and vertical surfaces. Should be used in areas that can tolerate high-volume water rinsing.

Table E-2. MIL-C-87937 - Continued

Nomenclature	Specification Part Number	National Stock Number	Unit Issue	Intended Use
	Type IV	6850-01-429-2368 6850-01-429-2371	1 Gallon 55 Gallon	Type IV - Heavy Duty, Water Diluteable Cleaning Compound. Equally suited for cleaning both heavily soiled areas and general aircraft surfaces may be used on painted or unpainted surfaces. Suitable for use on high gloss or tactical paint systems.

- q. Page E-8, paragraph E-2 is amended to change first line to read:

E-2. ALTERNATE CLEANERS. (Refer to Table E-2). Alternate aircraft

- r. Page E-9, paragraph E-2 is amended to add note following step d. to read:

NOTE

Large-scale use of the bulk form of this cleaner in aircraft wash facilities may lead to problems at waste-water treatment facilities.

- s. Page E-9, paragraph E-2 is amended to add step e. to read as follows:

e. MIL-C-43616. This is a solvent emulsion cleaner which is very effective at removing oily soils and greases. The aerosol version of this cleaner (6850-00-005-5305) is especially effective as a spot cleaner. Since this cleaner has a very high solvent content it is recommended for use on non-polyurethane paints and/or markings as fading and streaking are likely to occur.

- t. Page E-17, paragraph E-10.2.b is amended to change first sentence to read as follows:

Plastic electrical insulation shall be cleaned by wiping with a lint free cloth or sponge moistened with clean water or a solution of isopropyl alcohol (TT-I-735 Graded A).

THE END